AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A compound represented by a formula [1]:

wherein R¹ and R² respectively represent a light or heavy hydrogen atom, R³ represents a light or heavy hydrogen atom or a methyl group in which three hydrogen atoms are respectively light or heavy hydrogen atoms, and R⁴ is a norbornyl group provided that four or more hydrogen atoms in the norbornyl group are heavy hydrogen atoms produced by the method as set forth in claim 4.

- 2-3 (canceled).
- 4. (currently amended): A process for producing a compound represented by a formula [1]:

$$R^{1}$$
 $C=C$ R^{3} [1]

wherein R¹ and R² respectively represent a light or heavy hydrogen atom, R³ represents a light or heavy hydrogen atom or a methyl group in which three hydrogen atoms are respectively light or heavy hydrogen atoms, and R⁴ is a norbornyl group provided that four or more hydrogen atoms in the norbornyl group are heavy hydrogen atoms,

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comprising reacting a norborneol containing four or more heavy hydrogen atoms in its norbornyl group with a compound represented by a formula [2] comprising:

(i) reacting a norborneol with heavy water in the presence of palladium catalyst under an atmosphere of light hydrogen gas, or

(ii) reacting a norbornanone with heavy water in the presence of palladium catalyst under an atmosphere of light hydrogen gas and then reducing the obtained deuterated norbornanone,

in its norbornyl group; and

reacting said deuterated norborneol with a compound represented by a formula [2]:

$$\begin{array}{ccc}
R^{1} & R^{3} \\
C = C & C \\
R^{2} & C - X
\end{array}$$

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wherein R¹ and R² respectively represent a light or heavy hydrogen atom, R³ represents a

light or heavy hydrogen atom or a methyl group in which three hydrogen atoms are

respectively light or heavy hydrogen atoms, and X represents a halogen atom, a hydroxyl group or

an alkoxy group.

5-8 (canceled).

9. (new): A process for producing a deuterated norborneol comprising:

(i) reacting a norborneol with heavy water in the presence of palladium catalyst under an

atmosphere of light hydrogen gas, or

(ii) reacting a norbornanone with heavy water in the presence of palladium catalyst under

an atmosphere of light hydrogen gas and then reducing the obtained deuterated norbornanone.

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